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Calculation of rate on the interphase surface in turbulent gas-liquid flows

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Abstract

Equations for the calculation of liquid rate on the interface in two-phase turbulent systems are derived on the base of momentum balance in boundary layer at the given law of turbulent pulsations damping in a liquid sublayer. The equations are tested for the cases of strigth-flow axial and twisted motion of dispersed-circular flows in cylindrical tubes as well as of gas(vapour)-liquid layer on mass exchange plates. The results of calculations are in a good agreement with experimental data.